



The Blurb



Newsletter of The Phil-Mont Mobile Radio Club
66 Years of Public Service, 1949 to 2015

Volume 67 Number 5

www.phil-mont.org

May 2016

The General Membership Meeting Is on the 11th at Giant in Willow Grove

May is here! And that means...

Mother's Day Memorial Day Countdown to Field Day

Volunteers Needed

We received a request to assist with vital communications for a Memorial Day Ceremony in our area on Monday May 30. Volunteers will be needed on site from 11AM to 2PM. This location is very close to our Field Day Site in Fort Washington State Park. We need your timely response to info@phil-mont.org stating your availability. Please **read the letter on page 7** from Ryan Noyes, KB8LUV. We will be making the club's 147.030 repeater available and it will give full HT coverage.

73, Greg Malone WA3GM, PMRC President

Know what this is? No?

Then you better turn to W3NE Bob Thomas' article on page 5



<i>The Blurb</i> is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, Inc., whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs. Requests should be sent to the Editor: Rick DeVigiliis ND3B@ARRL.net Subscriptions are available to non-members for \$12, addressed to the Treasurer. Labels and mailing: KB3IV Submissions deadline: All copy must be in the hands of the Editor by the 20th of the previous month.		Directors: N3QV(17) W3RM(17) K3HWG(17) WA3KIO(16) KB2ERL(16) ND3B(16) W3STW(A)	Contact Phil-Mont: P.O. Box 404 Warminster, PA 18974 http://www.phil-mont.org Website: Eric N3QV & Andrew KC2PMW For club information: Contact any club officer, or the repeaters listed below. Address or club directory changes and articles for the membership e-mail list should be sent to: KB3IV
		Sunday Morning Net Schedules • 2 Meter/ 70cm Net..... at 0930L on W3QV repeater • 10-on-10 Net at 1000L 28.393 MHz USB (±QRM) • 75 meter Net at 1020L 3.993 MHz LSB • ARES at 2100L on the W3QV repeater	
Committees Blurb folding: KB3IV & N3GLU Directory: KB3IV Field Day: KC2PMW Fusion Coord: NC3U	Internet: N3QV & KC2PMW Membership: K3HWG Net Control: KB3IV	Program: W3AOK Publicity: W3RM Refreshments: W3AOK Repeater: W3AOK	Scholarship: W3RM Sunshine: N3GLU VE Program: NS3K Welcome: N3UBY Youth: KC2PMW

All visitors are welcome!

The club meets at 7:00 PM on the *second* non-holiday Wednesday each month except July and August at Giant Supermarket, 315 York Rd, Willow Grove, PA
 Maps and directions are available at www.phil-mont.org.

License Examinations are held on the fourth **non-holiday Thursday** each month at

Community Ambulance Association, 1414 E. Butler Pike, Ambler PA 19002

Registration begins at 7:00 P.M. Applicants should contact Jim McCloskey NS3K at 215-275-2979 or jmccloskey@msn.com for the latest information.

Club Stations W3QV/R: The Jim Spencer Memorial Repeater System

Ridge & Port Royal Avenues, Philadelphia, PA **Trustee: W3RM**

147.03 MHz + PL 91.5 Hz 444.80 MHz + PL 186.2 Hz

Reach us on EchoLink through W3QV-R

W3AA Trustee: WU3I

W3EM: Field Day/special event station Trustee: N3QV

The Officers

President: WA3GM Greg Malone wa3gm@yahoo.com

Vice President: W3AOK Bill Popovic w3aok@verizon.net

Treas: KB3IV Ed Masarsky kb3iv@comcast.net

Secretary: WU3I Steve Hoch wu3i@arrl.net

The Prez Sez ...



Hello Philmont-

With spring time here that means that Field Day is just around the corner. June 25 & 26 will be the dates this year. We will again be at Ft. Washington State Park 420 Militia Hill Rd, Fort Washington, PA 19034.

Our Field Day Coordinator for this year is Bob KB2ERL. Band Captains please get in touch with Bob KB2ERL ASAP so we can firm up plans. All members are encouraged to come out and visit and more importantly operate during field day. If you can provide any advance notice of the times you can operate that would be much appreciated. This is NOT a fast paced contest type environment. This is a fun family type environment as well as checking our readiness for emergency type operations so come out and join us. This would be a good opportunity to bring the kids and the grand kids so they can operate. As if that was not enough to peak your interest we again have our very own "Chef Tell" aka Steve" WU3I providing us with meals throughout the weekend. Come savor whatever delicacies Steve has in store for us.

The Phil-Mont general meeting in April was very well attended by members and visitors. A special thanks to the folks from SCARA who attended and we look forward to seeing you at our Field Day. I would like to thank Bill, W3AOK for his fine presentation movie on the Field Day Operation and Set Up of the W3LPL Group (W3AO). Although we do not run that type of operation here at Phil-

Mont it was a great insight of what it takes to put on a large operation of that nature.

The following is a list of speakers for our meetings for the next few months:

June 8 2016: "How Sound Cards and Radios Work Together" Professor Barry Feirman K3EUI of our Digital Education Net will fill us in on sound cards along with some Demos etc....

July/August Summer Break

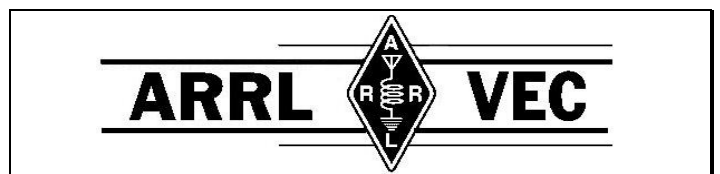
The Holmesburg Amateur Radio Club would like to pass on their sincere thanks to our own Jim Fisher KC3BRA for his great presentation on the Wires X System at their April Meeting last week. Jim put on a good demonstration and as always he was very entertaining... Thanks Jim.

If anyone has any suggestions for a speaker or would like to speak at one of our meetings please let any of the club officers or board members know. Your input is vital and we welcome all suggestions.

Don't forget to sign up for the Phil-Mont Yahoo Group. We currently have 40+ members. This is a good way to share ideas amongst the membership. Thanks to Sal NC3U for starting and moderating the group. For more info and to join the group contact Sal.

See you all at the next meeting

73, Greg WA3GM



***Thursday evening session is on
the 26th this month.***

As always, many thanks to our VE team!

Phil-Mont Birthdays & Tidbytes

MAY BIRTHDAYS

05 Paul Policarpo - N3PP

Patrick Taylor - W3HVG

07 Bob Swayne - K3NIE

15 Doug Crompton - WA3DSP

17 Herb Scott - N3OLK

28 Peggy Kaufmann - KB3DID

29 Maggie Leber - K3XS

30 Bill Chedeville - W3GQD

31 Joyce Mitchell - (XYL KC3CEW)

MEMBERSHIP STATS

At press time P.M.R.C. has:
111 FULL PAID MEMBERS
11 FAMILY MEMBERS
2 YOUTH MEMBERS
1 HONORARY MEMBER

From the Secretary

April 6 Board meeting

WA3GM opened the meeting at 712 pm. In attendance were WU3I, KB3IV, KB2ERL, ND3B, K3HWG and W3STW.

Treasury Report:

KB3IV reported we got money and all is running as planned. motion to accept report K3HWG, Seconded ND3B. Motion carried.

Membership Report:

New member to be voted on K3NIE Bob. KB3IV made the motion to accept the Applicant, WA3GM Seconded, Motion carried.

Technical Committee Report:

All is working well. New receiver with PL coming soon.

BLURB Report:

The editor reports he is "UNDER TOO MUCH PRESSURE." However please continue to send in your contributions for the Blurb, not the financial kind. (*Wrong. I take cash, green stamps and Tums. No checks.- ed*)

Old Business:

KB3IV announced the Directory would be coming soon to an email box near you(probably yours).

New Business:

After discussion the motion was made to return to every other Month Board meetings K3HWG Made the motion and ND3B seconded motion was carried. We can always have an extra when we need it. for 2016 meetings will be June, September and November.

Sick bay report:

K3CHR was in the Hospital for a few days but is home and doing well. K3HWG is recovering from the installation of another spare part (kidney this time). He is home and doing great.

KB3IV reported on the expiration of the W3PSH callsign of the Keystone ARC. This had been the call of the GOTA station for many years. It has been renewed. W3AA to be renewed in July.

KB2ERL is the Field day Coordinator. Please contact Bob at bnic1903@msn.com to register as a band captain. Please let Steve WU3I know if you are attending and which meals you will be joining us for. The choices are Saturday lunch and dinner and Sunday breakfast and lunch. If you have dietary restrictions please make your own plans as

we have limited ability. If you are not on the list you will eat last after all registered operators have eaten. PLEASE LET ME KNOW IN ADVANCE!

Social Events

It has been suggested we have a picnic somewhere. Perhaps Fort Washington State Park where we have field day. This would be BYOP (bring your own picnic) affair for all to get together. More to follow if interest peaks.

KB3IV made the Motion to adjourn, ND3B Seconded. A mad rush for the door ensued.

April 13 General Meeting

The Secretary arrived at 713 PM and the meeting which had already started became Official. WA3GM had opened the meeting but there was no official record of this.

NS3K reported the VE session upcoming on 4/28 and the next Saturday session on June 11

May first will be the Warminster Hamfest.

There were 20 members and 2 Guests present. Our guests were N2ANG Nancy and KB2MN Larry from the Southern Counties ARA(SCARA) in New Jersey.

KB2ERL announced himself as the Field Day Coordinator. Please contact Bob to register as a band Captain so far the bands look like this:

10	
15	KB3SJS
20	K3FXR
40	
80	KB2ERL
160	
6M, 2M	W3AOK
GOTA, Satellite	KC3BRA

Still open at the writing of this report are 160 usually done by WA3BXH Jack, 10 Meters and 40 Meters which has been done in the past by W3RM. Both Jack and Dick have been having a run of Health Problems and may not be available

for Field day. We wish them the best and hope they are better soon.

The Program was on Field Day with some pictures of Past PMRC Field Days and a great movie on the Potomac Valley radio Club in the Maryland DC area and their MASSIVE FD OPERATION.

Thanks to all for attending and thanks to W3AOK for the Program.

de Steve, WU3I

A T/R CONTROL BUS ISOLATOR

Chinese module to the rescue!

Bob Thomas, W3NE

This article illustrates how incompatibility in Transmit/Receive control requirements of several pieces of equipment can be overcome. It also highlights a source of useful and inexpensive fully-assembled PC-board modules.

The T/R control situation can become complicated in a fixed station when several types of auxiliary equipment are controlled by a single HF transceiver. The Yaesu FTdx-3000 at W3NE has a T/R control port that supplies a logic ground on Transmit and +4 volts on Receive. Furthermore, transceiver specs do not permit connected equipment to present more than +20 volts to its T/R port in Receive mode. However, my used Heathkit SB-220 linear amplifier from 35 years ago ordinarily has 200 volts on its T/R bus in Receive! That would spell *instant death* if connected to a modern solid state transceiver, but a previous owner installed the popular Harbach "Soft Key" modification, intended to present only +0.7-volt to the Yaesu in Receive. Nevertheless, even though the modified amplifier is now fully compatible with my transceiver, old fashioned fuddy-duddy W3NE grew up with solid state development and has lingering concerns for a possible worst case situation where a short circuit through the soft key interface feeds back high voltage on the T/R bus and fries his transceiver.

That disaster can be avoided with certainty by intervention of open relay contacts. A relay might be belt-and-suspenders overkill, but it leaves no possibility for a transceiver disaster.

Another need for relay isolation in my transceiver T/R bus is for control of power to the preamplifier of the station's Pixel Plus Magnet Loop receive-only antenna. Power has to be removed from the preamp during Transmit to protect the sensitive input stage from high level RF arriving directly from the transmitting antenna. Control logic to do that operates between 0 and +24 volts, which of course is incompatible with the Yaesu transceiver. And finally, sometimes a DX Engineering antenna switch accessory is used to ensure transmit RF is never accidentally fed to the transceiver's receive-only antenna input; that requires still one more T/R control logic!

Construction of a relay isolation interface certainly poses no great challenge but there is a very simple and inexpensive way to accomplish it. A quick search of eBay turned up the Hong Kong vendor Electronics-Salon¹ that offers inexpensive fully assembled and tested PC modules for a wide variety of applications. The module selected has two relays with Darlington-pair high input impedance drivers, diode reverse emf suppression, and screw-type terminal strips for +12-volt power and connections to all relay contacts. The vendor's website has schematic, performance specs, and close-up color photos and dimensioned layouts for both sides of the PC board. Cost of the module is only \$9.99 with free shipping. Such a deal!

The module circuit board is fastened with double-sided tape to the bottom half of an extruded aluminum box. Similar enclosures are obtainable on eBay in various sizes, configurations, and finishes. These sleek enclosures escape the dated appearance of traditional folded sheet metal "miniboxes." Picture on cover shows the inside of the enclosure with coaxial power jack, RCA phono jack for transceiver input, and LED power indicator on the front panel. The other end has four RCA jacks for isolated T/R feeds to linear amplifier, loop antenna muting, DXE aux controller when used, and a spare.

Because control logic of the stock relay module is the inverse of the

transceiver T/R output logic, a 2N3906 common emitter inverter is connected directly between the input jack and module Darlington inputs so relays are energized in Transmit and de-energized in the Receive resting state. The complete assembly is illustrated shown in cover photo.

Here are some examples of other unique modules available from Electronics-Salon: There is a variety of relay modules similar to the one used here with one to four relays in several voltage and current ratings. Modules are available with adjustable and fixed d-c voltage regulators including a "step-up" regulator that outputs a regulated voltage *higher* than the input! A complete 115/230 VAC power supply providing regulated d-c output from 1.25 to 15.8 volts on a board less than 3 inches square (including a miniature power transformer) costs \$24.00. Audio modules include mono and stereo preamps and power amplifiers up to 50 watts, a relay-based remote audio input selector, and a pink noise generator. Hackers will appreciate the variety of Arduino accessories. A soft-start power a-c control module for reduction of power supply inrush current will be the basis for construction of a useful accessory in a subsequent *Blurb* article.

As illustrated by this simple construction project, there are many opportunities for building small accessories for the ham shack. Those easily assembled devices will not only enhance the operating experience, they will give – new hams in particular – a sense of accomplishment obtainable in no other way. Give it a try!

REFERENCES:

¹ Electronics-Salon
<http://www.ebay.com/sch/electronics-salon/m.html?item=371176059043&ssPageName=STRK%3AMEBIDX%3AIT&rt=nc&trksid=p2047675.l2562>

² Relay PCBoard:
<http://www.ebay.com/itm/130690277968?trksid=p2055119.m1438.l2649&ssPageName=STRK%3AMEBIDX%3AIT>

Dear all,

KB8LUV here. I'm the former president of W8SH (Michigan State University) and a former avid DXer from the burbs of Detroit.

Requesting volunteer support for a Memorial Day ceremony on the holiday itself (5/30) that will draw a crowd of about 800. This ceremony is hosted by the William Boulton Dixon American Legion post in Fort Washington (PA Post #10). VIP includes the Secretary of the Army, the Lieutenant Governor of Pennsylvania, multi NYTimes number-1 best selling author and movie maker Sebastian Junger, three 2-star generals and numerous active duty military details.

It's going to be an exceptional event, but communications support is very much in need; especially use of a repeater. Parking will be at numerous off-site locations with shuttle transfer, and due to closure of Bethlehem Pike, I see at least a dozen locations where having a ham on-site, as "RTO" would be a godsend.

Any interest to provide support? I can offer free food and drink after the ceremony, and likely (no promise) recognition of your services from the Governor and Secretary of the Army by way of letterhead after the event.

73,
Ryan Noyes, KB8LUV

For Sale

1/8" (290#) & 3/16" (380#) Dark Olive Drab Braided Cord · 100% Polyester/Dacron Knit Braided. Nice stuff! Tough and long lasting · UV Resistant and Low Stretch Proudly Made in the U.S.A.! Contact Steve WU3I at wu3i@arrl.net or 215-605-6074



For my XYL



May at Phil-Mont

1 Sun WU3I
 8 Sun KB3SJS
 Mother's Day
 11 Wed Club Meeting
 15 Sun KB3IV
 21 Sat Armed Forces Day
 22 Sun W3MHP
 26 Thur VE session
 29 Sun N3QV
 30 Mon Memorial Day

Don't forget the ARES net on Sunday nights and the Digital net on Tuesday nights.

For Sale: Ameritron AL-811 Linear Amplifier this is the 600 watt 3 tube amp. It is in excellent condition with no dents or scratches. Works fine. Asking \$575 or best reasonable offer. Contact Bill (K3HWG) at 215-370-5763 or K3HWG@arrl.net

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First Class Mail

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